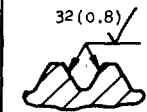
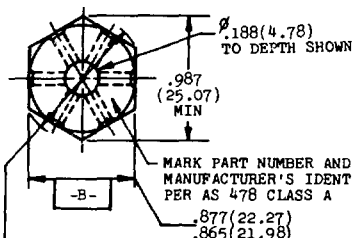


**MS9963**FED. SUP CLASS  
5306SECTION THROUGH  
THREAD PROFILE

32(0.8)  
359(9.12)  
.279(7.09)  
32(0.8)  
C .003(0.08)  
K-  
G-  
175(4.45)  
TO POINT  
.016(0.41)  
OR CHAM  
.030(0.76)  
.020(0.51)R  
32(0.8)  
531(13.48)  
521(13.24)  
A .006(0.015)  
- .002/1 (S)  
-C- SEE NOTE 1  
835(21.21) MIN  
BEARING SURFACE  
VIEW A  
885(22.47)  
MAX  
CHAMFER .062(1.57)  
X 45° ±10°  
5625-18UNJF-3A  
MIL-A-8879  
-A-  
CHAM 30° TO 875(22.23)  
(OPPOSITE SIDE OPTIONAL)  
C .026(0.66)  
877(22.27)  
865(21.98)  
MARK PART NUMBER AND  
MANUFACTURER'S IDENT  
PER AS 478 CLASS A  
987(25.07)  
MIN  
188(4.78)  
TO DEPTH SHOWN  
D B M .020(0.51) M  
CSK 90° TO .100(2.54)  
6 HOLES EQUALLY SPACED  
Ø.070(1.78)



CHAM 30° TO 875(22.23)  
(OPPOSITE SIDE OPTIONAL)

VIEW A

User activities:  
Army  
Navy  
Air Force  
DCAReview activities:  
Army  
Navy  
Air Force  
DCA

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

- FOR PART NUMBERS MS9963-04 THRU MS9963-25 THE THREAD PD SHALL REPLACE DATUM C.
- INCOMPLETE THREADS NOT TO ENTER PILLET.
- MATERIAL: STEEL AMS 6322.
- HARDNESS: ROCKWELL C26-32.
- FINISH: CADMIUM PLATE AMS 2400. DIMENSIONS SPECIFIED ARE AFTER PLATING.
- MANUFACTURING SPECIFICATION: AMS 7452 EXCEPT HEAD SHALL BE UPSET.
- HEAD TO SHANK FILLET SHALL BE COLD WORKED.
- MAGNETIC PARTICLE INSPECTION PER AMS 2640 AFTER PLATING.
- SURFACE TEXTURE: ANSI B46.1-1962. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES (3.2 MICROMETERS) EXCEPT UPSET HEAD.
- BREAK SHARP EDGES .003-.015 (0.08-0.38) UNLESS OTHERWISE SPECIFIED.
- DIMENSIONS IN INCHES. METRIC CONVERSIONS ARE IN PARENTHESES. UNLESS OTHERWISE SPECIFIED: TOLERANCES; LINEAR DIMENSIONS ±.010 (0.25), ANGULAR DIMENSIONS ±5°.
- INTERNATIONAL SYSTEM UNITS (SI) SHOWN ARE FOR REFERENCE ONLY.
- DIMENSIONING AND TOLERANCING: ANSI Y14.5-1966, Ø = DIAMETER.
- DO NOT USE UNASSIGNED PART NUMBERS.

AS AND AMS ARE SOCIETY OF AUTOMOTIVE ENGINEERS, INC., PUBLICATIONS.  
THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE MILITARY SERVICES BY THE SAE AEROSPACE PARTS STANDARDS DIVISION.

P.A. Air Force- II Other Cast Army - AV Navy - AS	TITLE BOLT, MACHINE. HEXAGON HEAD, DRILLED, 6 HOLE, PD SHANK, STEEL AMS 6322, CADMIUM PLATED, .5625-18UNJF-3A	MILITARY STANDARD <b>MS9963</b>
PROCUREMENT SPECIFICATION	SUPERSEDES:	SHEET 1 OF 2

DD FORM 1 SEP 77 672-1  
ASD use only

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

5306-0498

APPROVED 27 JUN 74 REVISED

**MS9963****FED. SUP CLASS**  
5306User activities:  
Army  
Navy  
Air Force  
D S AReview activities:  
Army  
Navy  
Air Force  
D S A

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PART NUMBER	L		O MIN		K MAX		APPROX MASS		L		O MIN		K MAX		APPROX MASS	
	IN.	(mm)	IN.	(mm)	IN.	(mm)	LB/100	kg/100	IN.	(mm)	IN.	(mm)	IN.	(mm)	LB/100	kg/100
MS9963-04	.875	22.22	.030	0.77	.134	3.40	10.61	4.813	3.125	79.38	1.579	40.11	1.750	44.45	25.47	11.553
MS9963-05	.938	23.82	.030	0.77	.134	3.40	11.01	4.994	3.250	82.55	1.694	43.22	1.875	47.62	26.24	11.902
MS9963-06	1.000	25.40	.030	0.77	.134	3.40	12.41	5.629	3.375	85.72	1.812	46.06	2.000	50.80	27.00	12.247
MS9963-07	1.062	26.97	.030	0.77	.134	3.40	13.21	5.910	3.500	88.90	1.929	48.27	2.125	53.97	27.77	12.596
MS9963-08	1.125	28.58	.030	0.77	.134	3.40	13.60	6.169	3.625	92.08	2.046	50.80	2.250	57.15	28.54	12.946
MS9963-09	1.188	30.18	.030	0.77	.134	3.40	13.98	6.341	3.750	95.25	2.163	52.81	2.375	60.32	29.30	13.290
MS9963-10	1.250	31.75	.030	0.77	.134	3.40	14.36	6.514	3.875	98.42	2.280	55.99	2.500	63.50	30.07	13.634
MS9963-11	1.312	33.32	.030	0.77	.134	3.40	14.75	6.680	4.000	101.60	2.397	58.16	2.625	66.67	30.84	13.979
MS9963-12	1.375	34.92	.030	0.77	.134	3.40	15.13	6.863	4.125	104.78	2.514	60.32	2.750	69.85	31.60	14.324
MS9963-13	1.438	36.52	.030	0.77	.134	3.40	15.51	7.035	4.250	107.95	2.631	62.48	2.875	73.02	32.37	14.668
MS9963-14	1.500	38.10	.030	0.77	.134	3.40	15.89	7.208	4.375	111.12	2.748	64.64	3.000	76.20	33.13	15.013
MS9963-15	1.562	39.67	.030	0.77	.134	3.40	16.28	7.384	4.500	114.30	2.865	66.80	3.125	79.37	33.90	15.357
MS9963-16	1.625	41.28	.030	0.77	.134	3.40	16.66	7.560	4.625	117.48	2.982	68.96	3.250	82.55	34.67	15.702
MS9963-17	1.688	42.88	.030	0.77	.134	3.40	17.04	7.735	4.750	120.65	3.099	71.12	3.375	85.72	35.43	16.047
MS9963-18	1.750	44.48	.030	0.77	.134	3.40	17.43	7.910	4.875	123.82	3.216	73.28	3.500	88.90	36.20	16.400
MS9963-19	1.812	46.06	.030	0.77	.134	3.40	17.81	8.088	5.000	127.00	3.333	75.44	3.625	92.07	36.96	16.755
MS9963-20	1.875	47.62	.030	0.77	.134	3.40	18.19	8.265	5.125	130.18	3.450	77.60	3.750	95.25	37.73	17.114
MS9963-21	1.938	49.22	.030	0.77	.134	3.40	18.58	8.448	5.250	133.35	3.567	79.76	3.875	98.42	38.50	17.463
MS9963-22	2.000	50.80	.030	0.77	.134	3.40	18.96	8.630	5.375	136.52	3.684	81.92	4.000	101.60	39.26	17.808
MS9963-23	2.062	52.38	.030	0.77	.134	3.40	19.34	8.812	5.500	139.70	3.801	84.08	4.125	104.77	40.03	18.157
MS9963-24	2.125	53.97	.030	0.77	.134	3.40	19.72	9.000	5.625	142.88	3.918	86.24	4.250	107.95	40.80	18.507
MS9963-25	2.188	55.58	.030	0.77	.134	3.40	20.10	9.188	5.750	146.05	4.035	88.40	4.375	111.12	41.56	18.851
MS9963-26	2.250	57.15	.030	0.77	.134	3.40	20.48	9.375	5.875	149.22	4.152	90.56	4.500	114.30	42.33	19.200
MS9963-27	2.312	58.72	.030	0.77	.134	3.40	20.86	9.562	6.000	152.40	4.269	92.72	4.625	117.47	43.09	19.545
MS9963-28	2.375	60.32	.030	0.77	.134	3.40	21.24	9.750	6.125	155.58	4.386	94.88	4.750	120.65	43.86	19.890
MS9963-29	2.438	61.92	.030	0.77	.134	3.40	21.62	9.938	6.250	158.75	4.503	97.04	4.875	123.82	44.63	20.235
MS9963-30	2.500	63.50	.030	0.77	.134	3.40	22.00	10.125	6.375	161.92	4.620	99.20	5.000	127.00	45.40	20.580

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Other Cost  
Army - AV  
Navy - AS

TITLE

BOLT, MACHINE, HEXAGON HEAD, DRILLED, 6 HOLE,  
PD SHANK, STEEL AMS 6322, CADMIUM PLATED,  
.5625-18UNJF-3A**MILITARY STANDARD****MS9963**

SUPERSEDES:

SHEET 2 OF 2

DD FORM 17 672-1  
ASO use only

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

5306-0498

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APPROVED 27 Jun 74 REVISED